# MEDICATION ADHERENCE

## STATEMENT OF THE PROBLEM

Medications are used to prevent and control asthma symptoms, improve quality of life, reduce the frequency and severity of asthma attacks and reverse airflow obstruction. Many patients do not take their medications as prescribed for a variety of reasons. The best approach when faced with non-adherence is to work with the client to understand what leads them to adhere poorly. When you work with patients in a relationship based on knowledge and understanding of their issues regarding medication adherence, patients will feel free to be honest with you about the barriers that interfere with adherence. If they can do that then the problem solving work is accurately targeted and the patient will likely demonstrate higher investment in a plan for medication adherence that they create. The client's individual barriers to medication non-compliance can be addressed and discussed in a non-judgmental way that normalizes non-adherence. Source: Appendix: Excerpt from National Asthma Campaign of Australia, pg. 7)

## BACKGROUND

- Many people with asthma do not take their medicines as prescribed, for a variety of reasons.
- Medicines work best when taken as prescribed. If they are not taken at the right time and at the right dose, there is a good chance they will not work.
- Maintaining a non-judgmental attitude towards non-adherence is helpful in working with people living with asthma.

## ASSESMENT

Understanding the participant's beliefs and attitudes, daily schedule and situation, and keeping a non-judgmental attitude towards non-adherence are key.

- Ask in a non-judgmental way about how the participant is using asthma medicines. Use "tell me about…" instead of "why" when asking about medication non-adherence.
  - *"Many people have a hard time using asthma medications regularly in the exact way the health provider has prescribed them.*
  - *There are many reasons people have trouble with this.*
  - *Does your participant have any problems in taking his/her medicines exactly as prescribed?*
  - *How often do these problems come up?"*
- If participant reports having problems, ask him/her what kinds of things make it hard to take the medicines as prescribed.
- Review the use of each prescribed medication, why it is being used and how often it should be taken.

## Educational Messages

- Good control of asthma means no symptoms and no limitations on activity.
- Adherence with taking medicines is a major factor in successfully controlling asthma.
- Adherence will give the participant control rather than asthma controlling them.
- Adherence can be improved by:
  - Ensuring the participant understands asthma and its treatment
  - Keeping medicines simple
  - Communicating with providers
  - Partnering with the participant/caregiver
  - Understanding participant's concerns & barriers to adherence
- The goal is to help the participant/caregiver come up with strategies that they think will work to improve adherence.
- It can be helpful for children with asthma to involve other caretakers in adhering to the medication regimen, include extended family, the school and the childcare.

## ACTIONS

| CHW ACTIONS | CAREGIVER ACTIONS |
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| • Probe into misunderstandings about correct use of medication. When to use controller versus reliever is especially important.<br>Ask about:<br>-cost<br>-getting to the pharmacy<br>-running out of medications and not having refills easily available<br>-concerns about side effects<br>-difficulty remembering/sticking to a schedule<br>-refusing/not liking to take medicine<br>-being too busy to take medicine<br>-not having access to medicines when away from home.<br>•Probe for other reasons/beliefs for not taking medicine as prescribed:<br>-doesn't need it because he/she feels well<br>-fear of becoming addicted to the medicine<br>-thinking medicines don't work.<br>•Ask," What worries you most about asthma?" | • Share issues with CHW regarding taking medication.<br><br>• Use strategies to increase adherence that address factors resulting in lack of adherence.<br><br>•Call back to CHW as needed. Ask CHW to go along to provider visit or speak to the project nurse as needed to enhance communication with the provider. |

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| (Taking medicines correctly may address some of those concerns.)<br>• Ask:<br>-How important is controlling your/your child's asthma?<br>-Any questions about the asthma diagnosis?<br>-How serious do you feel asthma is?<br>-How do you feel about the medications prescribed?<br>-Do you think these medicines work?<br>• Problem-solve with client to find strategies to address medication non-adherence. Then, check back with client in 1-2 weeks to see if adherence has improved. (see Additional Information). | |

## FOLLOW-UP VISITS

- Check technique and reassess adherence to medication
- Monitor progress & see if strategies are working
- If necessary, have the participant call back CHW to go with the participant to provider visit or have client speak with the project nurse.

## SUPPLIES

- Medication box

## EDUCATION HANDOUTS

Handouts given to participant/caregiver

- "The Goals: What you should expect when your asthma is under control"
- Action Plan

## REFERRALS

- To provider to encourage communication about identified medication concerns
- (e.g. understanding & simplifying medication plan, patient point of view, barriers to adherence)
- To pharmacist for questions regarding medications

## Additional Information

### HOW TO GO THROUGH THE PROBLEM-SOLVING PROCESS

- Identify problem
- Set goals
- Increase awareness & educate
- Explore options & brainstorm
- Explore Pros and Cons of status quo
    - Is there ambivalence? Explore decisional balance technique.
    - Come alongside (side with the negative – status quo)
- Question extreme thinking (both negative thinking and miracle question)
- Look Back & Look Forward
- Use change rulers
- Explore Goals and Values
- Ask for examples
- Ask for details when you hear a little change talk
- Develop a plan
- Review benefit & barriers to carrying out the plan

## Strategies based on specific non-adherence factors

| NON-ADHERENCE FACTOR | STRATEGIES |
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| Cost. | • CHW contact project nurse or clinic social worker.<br>• Participant can:<br>○ Request samples from provider<br>○ Ask about free (indigent) medication program<br>○ Check with care coordinator for low-cost medication program at clinic.<br>○ For emergency medication client can apply with Washington Prescription Drug Program.<br>○ Also the City of Seattle offers city residents the Prescription Discount Card Program providing savings off the retail price of prescription medication. |

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| Difficulty getting to pharmacy. | • CHW review transportation options.<br>• Participant could consider alternate pharmacy. |
| **NON-ADHERENCE FACTOR** | **STRATEGIES** |
| Difficulty getting refills authorized. | • CHW contact clinic nurse.<br>• Participant can:<br>• Remind provider to refill medications at each visit<br>• Ask how long the medicine will last when getting a prescription filled<br>• Call at least 3 days before medicines run out<br>• Use the same pharmacy so it can have refills ready<br>• Have a reserve supply of each medicine. |
| Too many medicines, taking medicines is too complicated. | • CHW discuss the possibility of simplifying the regimen with project nurse.<br>• Participant can talk to the provider about making things simpler, like using longer-acting medicines, which need to be taken only twice a day. |
| Forgetting to take medications. | • Help participant take medicines at same time each day:<br>○ Link taking medicine to a daily activity (e.g. brushing teeth, eating a meal)<br>○ Mark on a calendar when medicine has been taken<br>○ Ask family members to remind the participant (e.g. parent can call the participant when not with him/her to remind about taking medicine). |
| Cannot find medicines when needed. | • Keep all asthma medicines in one place (e.g. a box) and put them back right after using them. |
| Being too busy. | • Try to make taking medicine part of daily routine. |
| Not always having medicines around. | • Have extra inhalers so one is at:<br>○ Home<br>○ When leaving the home<br>○ At each of the other places where the participant spends a lot of time |
| Concerns about side effects. | • Commonly used asthma medicines are safe.<br>• They do not affect the heart or other organs.<br>• Inhaled steroids in low to medium doses do not stunt growth. |

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| | ○ They are not the same as the anabolic steroids sometimes used by athletes. |
| Fears of addiction. | • Asthma medicines are not addictive.<br>• They can be decreased or stopped, by the provider, without side effects, as long as asthma remains well controlled. |
| **NON-ADHERENCE FACTOR** | **STRATEGIES** |
| Not needing medication because participant feels well. | • Even if a person with asthma feels well, his/her lungs are still abnormally sensitive to triggers and prone to inflammation (swelling and plugging up with mucus).<br>• Daily preventive medicines:<br>○ Reduce this sensitivity<br>○ Reduce inflammation<br>○ Prevent asthma symptoms from returning<br>• If preventive medicines have been prescribed, it is necessary to use them daily even when feeling well.<br>• Stop taking them only if your provider says to do so. |
| Thinking medicines don't work. | • Many studies have shown that taking daily preventive medicines can:<br>○ Reduce asthma symptoms<br>○ Prevent going to the emergency department or hospital.<br>• Parent can talk with provider if they think participant's medicine is not helping.<br>• Provider can figure out if a change in the dose or type of medicine is needed. |
| Participant doesn't always like to take medicines. | • Explore why the participant is not taking medicine.<br>• Address concerns.<br>○ Explain to the participant why the medicines are important.<br>○ Explain to the participant how the medicines can make him/her feel better.<br>○ Provide rewards to younger participant for using medications.<br>• If participant doesn't like the taste<br>○ Try rinsing the mouth or chewing sugarless gum after using. |

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| | ○ If using a pill and it is hard to swallow, try taking it with food or juice.<br>○ Some pills may be crushed & mixed with food – client should check with their Pharmacist. |

APPENDIX: Excerpt from National Asthma Campaign of Australia. Asthma Adherence: A Guide for Health Professionals.

www.nationalasthma.org.au/publications/adherence. Accessed 5/16/02.

As we have stated throughout this guide, if you as a health professional are willing to modify your behaviour and role beyond the medical model towards a partnership approach to your relationship with your patient, this will positively affect the patient's adherence to treatment.

'⋯ patients need to know less about the pathophysiology of their disease and more about integrating new demands into their daily routine ⋯ (rather than to receive) ⋯ standard presentations of medical facts and treatment rules which all ⋯ asthmatics should know' (Mazucca 1982).

A commitment to partnership and a more equal relationship with your patient will foster communication and encourage the patient to take control of their self-management. This attitude should be based on a desire to understand the patient, their beliefs, their attitudes, their daily situation and schedule, and a non-judgmental attitude towards their non-adherence.

**Treatment should be:**
- **Clinically effective**
- **Simple**
- **Convenient**
- **Inexpensive**
- **As free from side effects as possible.**

**(Meichenbaum & Turk 1987)**

Focusing on the positive benefits of adherence, rather than the negative consequences of poor adherence, and devising practical strategies to address the impositions of treatment on the patient's life, will help to achieve a positive outcome. It is important to communicate to the patient that adherence will give them control, rather than asthma controlling them. If strategies or treatments have an unsatisfactory result, encourage the patient not to see it as a failure. Adverse reactions discourage adherence. Your attitude will help the patient to regard such incidents as learning experiences, rather than evidence that it's all too hard.

'In the past, the usual approach when discovering non-compliance is to attempt to persuade the patient of the error of their thinking and to try and communicate the intentions of the prescription and the importance of sticking to the regimen. Research strongly suggests that this approach has been of limited value' (Royal Pharmaceutical Society 1997).

We now know that the best approach when faced with non-adherence is to work with the patient towards a relationship based on knowledge and understanding, in which the patient's individual barriers can be discussed and addressed in an open, non-judgmental way that normalises non-adherence. As a health professional you know the medical and scientific reasons why your patient should adhere, but without communication, it is not possible to understand what leads your patient to adhere poorly.

Adherence can be promoted, identified and monitored by a collaborative approach to patient care by the asthma management team. Consider the strengths of the various members.

**Pharmacists** are in a unique 'front-line' position to assess and monitor a patient/client's adherence. Indeed the Australian Pharmaceutical Formulary states that 'the pharmacist must ensure as far as possible that the patient receives the required therapeutic effect of the drug'.

The pharmacist is an easily accessible and no-cost source of advice for the asthma patient. The pharmacist is likely to see patients on long-term treatment programs more regularly than their GP, and as we know, adherence decreases over time. Pharmacists can take these encounters as an opportunity to check or reinforce the patient's correct use of medications, provide education or advice, reinforce or clarify elements of the patient's management plan. If pharmacists see evidence of non-adherence or that the treatment plan seems unsuited to the patient they can refer them back to their GP for review.

**Asthma educators** are increasingly becoming valuable members of the asthma care team. Education is crucial to adherence, as well as to asthma management in general. More and more GPs are referring patients to asthma educators, who have the time and specific knowledge and skills to ensure patients understand their condition and their treatment.

The relationship between **specialists and GPs** has significantly changed over the past five years or so with both groups of practitioners now working together more effectively. For non-emergency cases requiring specialist attention, there can be issues such as long waiting lists. Recently, the approach taken has been for the GP to contact the specialist for advice, and then administer treatment within the general practice setting.

**Dr Jill Cockburn offers the following recommendations for best practice in addressing the use of adherence:**

- **Use appropriate overall interviewing skills**
- **Explore the patient's beliefs, offer solutions to barriers**
- **Use strategies to increase patient recall**
- **Reduce complexity of regimen**
- **Tailor medication regimen to patient's situation**
- **Use reinforcers, reminders, cues and feedback**
- **Elicit family support**
- **Monitor patient over time**

**(Cockburn 1997)**

The NAC has been a driving force behind collaborative efforts in managing asthma and facilitating discussion between professional groups. The team approach to managing asthma more effectively is already happening with the result that health outcomes for people with asthma have improved (National Asthma Campaign 1998). Our latest challenge, to improve levels of adherence, will benefit from continued collaboration and alliances between health professionals involved in the asthma management team.

In the next section you'll find practical suggestions to help you implement the following strategies in your work with people with asthma.

- Develop open, communicative, non-judgmental relationships with patients.
- Normalize poor adherence in dealings with your patient.
- Adopt a partnership approach to asthma management with your patient.
- Involve your patient in the planning process.

- Simplify treatment where possible, and strive to tailor treatment plans to your patient's preferences, needs and capabilities.
- Ensure that your patient understands their asthma and treatment.
- Collaborate with other health professionals to improve patient outcomes.
- Aim to build a partnership with patients for ongoing care.
- Encourage regular reviews and ongoing monitoring of adherence levels.
- Develop systems (such as reminders) to prompt patients on long-term treatment programs.

- **Use appropriate information-gathering skills.**
  It is possible to facilitate better communication with your patients by:
- using skills such as open-ended questions at the beginning of the consultation.
- avoiding questions that elicit a yes/no response or that are judgmental in their tone.
- showing empathy and warmth and following up on the patient's verbal clues.

  Such communication strategies will make it easier to assess possible non-adherence, and make it easier for the patient to discuss their individual issues and barriers to good adherence.

- **Facilitate open discussions with your patient about adherence.**
- Your attitude and your manner will help your patient to be honest and realistic when you are discussing adherence to different treatments for asthma. It is important to be non-judgmental and to normalise poor adherence (remember, around 50% of patients don't adhere to prescribed therapy).
- Ask questions that will elicit information about the patient's health beliefs, their attitude to their diagnosis and their willingness to make behaviour changes in order to better manage their asthma (see tips).

- **Use reminders**.

A number of prompts and reminders have been demonstrated to improve adherence:

- Telephone or postcard reminders.
- Individualized reminder charts.
- Diaries.
- Engaging family members and caretakers to provide reminders.

- **Facilitate recall.**
- Health practitioners, who use strategies such as repetition, giving specific advice, using written information, increase the recall of the patient. Knowledge of what to do is a prerequisite of adherence (Royal Pharmaceutical Society 1997).
- Improve patient recall by providing written education material and a written record of medication names and doses.

- **Explain likely side-effects**
- One of the quickest ways to engender non-compliance with therapy is for a patient to experience side-effects about which they have not been forewarned. Discuss possible side-effects and suggest ways these can be minimized.

▪ Always provide an opportunity for patients to express any concerns about the medication. Unvoiced concerns about continued drug use are a prime reason for discontinuing appropriate self-management. Give a balanced explanation of the benefits/risks of the medications.

**Factors that improve partnership:**
- **Body language**
- **Enquiring about patient's concerns**
- **Reassuring the patient**
- **Addressing immediate concerns of the family**
- **Interactive exchange**
- **Therapeutic regimen to fit patient's schedule**
- **Praise for correct management**
- **Eliciting patient's own goals**
- **Reviewing the long-term plan**
- **Helping the patient in advance (Clark et al. 1995)**

♦ **Involve the patient in the planning process**

▪ One way to encourage regular review is to focus on short-term goals while highlighting the long-term objectives. Short-term goals set around patient priorities such as sporting participation or fewer days off school or work are more likely to be successful than physiological goals such as peak flow. Setting end points, where patients know that reaching a certain goal will result in changes to medication, may encourage regular review (Sawyer 1998).

♦ With older patients, remember that the number of medications prescribed increases with age. The more medications used, the less likely people are to adhere. As the numbers of medications prescribed increases with age, the elderly are particularly at risk (Australian Institute of Health and Welfare 1994). If possible, not more than 3-4 drugs should be given each day.

♦ Explain to the patient (or their parent/caretaker) that you are trying to make them more competent to manage the disease themselves - and that your role is as an adviser.

♦ Don't try to instruct patients in all aspects of asthma at one consultation - build their knowledge base over consecutive visits.

♦ Simplify medication regimens where possible.

♦ Use once or twice daily dosing whenever possible.

♦ Make sure the patient's Asthma Management Plan is in a written form that they can easily understand.

♦ Encourage patients to see you even when they're feeling well - adherence needs to be continually monitored over time.

♦ Emphasizing disease severity will not necessarily make patients adhere better; helping them realize just how good they might feel is more likely to be successful.

## Frequently Asked Questions

**1. I know that gaining a better understanding of my patients, and their beliefs and attitudes towards asthma and its treatment is meant to be important, but how do I do it and where do I find the time?**

While an individual discussion of these issues may appear to take more time, research shows that consultations that use the communication skills referred to in this guide can lead to better health outcomes, more satisfied patients and shorter consultations. More satisfied patients will be more likely to return for follow-up, more likely to be honest and open in discussions, and less likely to require emergency management of asthma.

**2. What's the most reliable way of finding out if my patients/ clients are adhering?**

The accurate measurement of adherence is difficult. Although electronic devices, for use with medications and peak flow meters, do exist these are unlikely to be of practical use in the clinical setting. However studies show that patient admission of poor adherence is believable. Efforts to

normalize *poor* adherence, the use of open ended questions and an information rich questioning style are more likely to allow people to admit less than ideal adherence. This can then be a starting point for identifying barriers and developing strategies to improve adherence.

**3. How much adherence is enough? Is absolute adherence necessary?**

We don't really know the answer to these questions. Our decisions about what treatment to prescribe are guided by the results from clinical trials. These trials provide us with information on health outcomes for a particular dose of medication. We aim for 100% adherence with the treatment regimen but we don't really know whether there is a meaningful clinical difference between patients who are 100%, 95%, 90%, 85% and 80% adherent to the regimen. We do know that adherence is variable, and often poor, and the more we can do to enhance adherence the closer we should move towards the health outcomes demonstrated through clinical trials.

**4. Surely treatment regimens allow for low adherence. Could improved adherence create problems?**

The objective studies of adherence have all been exactly that, research studies. These show regularly that adherence is only about 50%. Therefore, participating in a clinical trial does not of itself result in good adherence, as was thought. Consistent with this knowledge, drug studies generally use a 'run-in' period where patients who are not adherent with monitoring can be identified and do not participate further. The clinical benefits of improving adherence far outweigh any possible adverse effects.

**5. What is the most important thing I as a doctor / pharmacist / nurse / asthma educator can do?**

The most important thing that you can do is to work in partnership with your patient. This means that adherence is an issue for both of you. Sharing the responsibility for good management and asking yourself, 'how can I best help my patient to follow their treatment plan' is an important step. Ask the patient what aspects of their management concern them. These concerns may be personal or they may relate to you. Communicating and working together is the most important thing you can do.

**6. Which is more important, explaining the medication or management plan better or actually simplifying the regimen?**

Simplifying the regimen is likely to be more important in addressing adherence in the first instance. There is not much point to lengthy explanations about medications or plans if the regimen is too complex to deal with. The more frequent the dosing the less likely the drug will be taken. Also, different delivery devices can lead to confusion regarding best aerosol technique and result in poor drug delivery. Simplifying the regimen is an important first step, which can then be built on.

**7. Why would people with asthma be more inclined to adhere if they are a partner in deciding how to manage their asthma?**

As a partner in the clinical situation the patient is able to communicate their views, feelings, concerns and take an active role in the outcome of the consultation. The input from the patient is used to guide the treatment regimen and so they themselves have crafted a plan or course of action for their own use. Ownership and control are important factors in ensuring the success of a self-management plan.

**8. In theory I believe in self-management and shared responsibility but many of my patients couldn't cope with it. What's the alternative?**

Some patients may appear to cope better with a more authoritarian style of communication. An authoritarian style may also appear easier for you the health professional, especially if this is

your usual practice. However, this style of communication is not helpful in identifying patients with poor adherence. An interactive and open communicative style should be our goal, given that this is more likely to elicit poor adherence, the starting point for improved asthma outcomes.

**9. How do I get through to the person with asthma just how important adherence is for them?**

Encourage your patient to conduct their own clinical trial. Find out what health outcomes they would like to achieve and work out a course to accomplish these. It may just be that the patient has dropped themselves back to a level of adherence which provides them with the asthma control that they desire.

**10. What skills do I need to develop? What do I need to know and understand?**

Communication skills mentioned throughout this guide are likely to be of most benefit to enhancing adherence. Being able to get patients to feel comfortable enough to express their attitudes, beliefs and concerns about asthma is likely to be an important starting point for dealing with adherence.

**11. How do I manage this notion of an asthma care team? How important is it really?**

The asthma care team is an important concept in the management of asthma. Members of the asthma care team include the doctor, pharmacist, patient, nurse and asthma educator. Much greater results can be achieved by a coordinated approach and teamwork. Patients who are supported by the asthma care team have a number of resources on which to draw to assist them to manage their asthma and to achieve the control they desire. By working together we can assist each other and the patient to minimize the impact of asthma.